

Digital Video Instructional Activity Outline

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1. Identification of the Class

- Subject: *Physics*
- Grade: *11*

2. What are the Virginia Standards of Learning that apply to your instructional activity?

- PH. 2 The student will investigate and understand how to analyze and interpret data. Key Concepts include
- a) a description of a physical problem is translated into a mathematical statement in order to find a solution;
 - b) relationships between physical quantities are determined using the shape of a curve passing through experimentally obtained data;
 - c) the slope of a linear relationship is calculated and includes appropriate units

3. Describe the instructional activity in 3-4 sentences. Please include the type of digital video project that you chose to use in your activity. You are more than welcome to include a lengthier description.

This is a screencast of how to fit a function to a scatter plot of data from a lab experiment. This is something students will have to do in almost every lab report so I created a tutorial for them to refer to if they forget. We will analyze the data of the first lab experiment as a class and I will guide them through it, but Labs may not be frequent enough for students to remember how to use Excel.

4. How would you assess student learning? You aren't required to create an assessment measure, but I do want you to think about this element of instruction. Three to four sentences will sufficiently answer this question.

In lab reports, students' graphs and data analysis will be graded. The graphs must have the correct data on the correct axes with the proper labels and units and include a regression line or other appropriate function. Along with an appropriate title, students' graphs will be graded on all these criteria.